Supporting Digital Literacy Public Policies and Stakeholders' Initiatives. Country report. Bulgaria

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Supporting Digital Literacy
Public Policies and Stakeholders' Initiatives

Country report
BULGARIA

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1. Introduction

This report is a part of the study "Supporting Digital Literacy Public Policies and Stakeholders' Initiatives", which involves data collection and analysis in a large number of countries, with a view to achieving several interlinked objectives, and in order to facilitate the realisation of one overall objective: To contribute to the enhancement of digital literacy in Europe by stimulating new and improved initiatives and tools at all levels.

Thus, in the context of the EU's social inclusion agenda and the renewed Lisbon Strategy, improving digital literacy has become a key priority. Therefore, there is now a need for an oversight over relevant and promising initiatives and strategies to promote digital literacy, so that the Union, the Members States and relevant stakeholders can act in the most efficient manner. The aim is to support the development of societies where the opportunities benefits offered by Information and Communication Technologies can be utilized by all citizens.
Key data sources, described and analysed on are as follow:

- The initial interviews, carried out with relevant key government agency representatives or other stakeholders where relevant at specific initiatives level, and selected regional representatives.
- The initial scan of relevant policy documents.
- The country report available through the European Commission's website "Supporting Policy Development for e-Inclusion" (www.ipolicy.eu).
- The European Commission's e-learning programme[1], which contains information on a number of directly relevant projects, the specific digital literacy overview page under EACEA's website, and many relevant projects, including "DigEuLit",[2] Emigra,[3] and Digital Competence Screenreader Network[4], also the internet in general, using the national translation of "digital literacy", "e-skills" and similar concepts were searched also.

The remaining sections cover three overall levels, in the following order:

1. The strategic level / the policy level
2. The level of specific initiatives for promoting digital literacy
3. The level of specific initiatives for measuring or monitoring digital literacy.

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[1] http://www.elearningeuropa.info
[2] http://www.digeulit.ec
[3] http://www.e-migra.org
[4] http://www.bfi-stmk.at/home/angebot/projekte/dicomp-Snet.php

2. Policies and strategies for digital literacy in Bulgaria

2.1. The starting point

Although data on Bulgaria is uncomplete, it is clear that it is at relatively early stage in the development of information society and respective digital literacy. However, there are some strengths and signs that Bulgaria is leapfrogging outdateed technologies to catch up with its new partners in the EU[5].

The percentage of population, regurlary using the Internet in Bulgaria is currently the second lowest in Europe. Current growth levels continue to be almost the lowest, but prospects are good with the enttry of new providers offering broadband thorugh different technologies. Around two thirds of homes with Internet access havebroadband, a figure close to the EU average. Usage of Internet services is low, escept for one online broadcasting, video and telephony services, where levels are closer to EU25 average.
Enterprise use of Internet is in general at the same low levels as housholds. User ICT skills among employees and employee use of Internet is very low but the number of ICT specialists level emplyees is close to the EU average, although a slight decrease in 2006.

More concretely the housholds having **broadband** as % of those having access to the Internet at home in 2006 is 59.4%, which is close to the EU-25 level of 62.1% with a rank of 19. The % of enterprises with broadband access is 56.5%, which is low comparatively to EU25 average (74.5%), which ranks the country as 25.
The % of population who are regular interenet users is 21.8, which is less than a half of the EU25 – avrage 46.7. The rank of the country is 28.

Take up of the internet services in the country (as % of population) as regards: sending e-mails is 19.4, which is very low comparatively to the EU25 average,which is 43.8 and rank it 27; looking for information about goods and services is 21.8, more than a half less that EU25-average, taking 28 rank;internet telephoning or video/conferencing 7.1, which is the same as EU 25 average and rank the country as 17; playing /downloading games and music is 11.7, where the EU25 is 11.8 and the rank of the country is 24; listening to the web radio/watching web tv ia 10.6, which is close to EU25 average – 11.8, ranking country as 17; reading online newspapers/magazines is 11.5, where the EU25 is 19.0, which ranks the country as 25; internet banking is1.3, which is far behand EU25 (22.0), and ranks the country as 28.
Analysing internet usage and take up of internet services as % of population it has to be taken into account the fact that Bulgaria is one with the highest level of aging population countries in EU which affect the average level (this state is supported by data provided further).

Places of Intenet access are at home (13.6%), at work (10.1%) at educational place (3.0%) and at PIAP (5.8%). The corresponding levels for EU25 average are 42.6, 23.8.0, and 6.8, which ranks the country respectively on 28,28,29, and 13 place.

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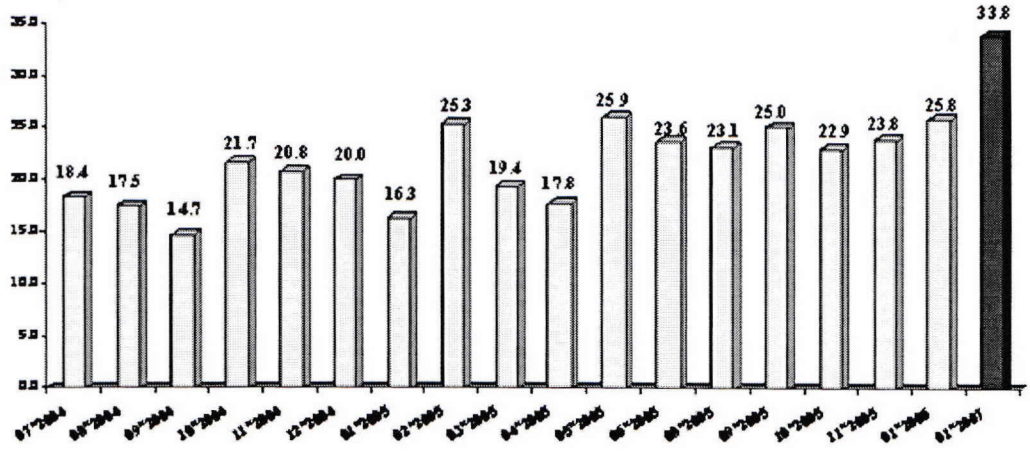
[5] Commission of the European communities, Accompanying document to the Communication from the Commission to the European Parliament, the Counx\cil, the European economic and social committee, and the commii\ttee of the regions, i2010 – Annual Information society report 2007, COM (2007) 146 final, Brussels, 30.3. 2007, SEC (2007) 395 ec.europa.eu/**information_society**/eeurope/i2010/docs/**annual_report/2007**/comm_pdf_com_**2007**_0146_f_en_acte.pdf

E-government indicators. The % of population using e-government services in Bulgaria is 8.4%, of which 2.4% for returning filled in forms. The respective EU25- average levels are 23.8 and 8.1, which ranks the country on 24 and 23 place. The % of enterprises using e-government services is 45.9, of which returning filled forms – 22.9. The corresponing levels of EU25 average are 63.7 and 44.8, which put the country on 24 and 25 place.

E – commerce as % of total turnover of enterprises in Bulgaria is 0.1. % of enterprises receiving internet orders is 3.5, and of those purchasing on the internet – 6.3. Corresponding ranks are 23,23 and 25. The repsective % for EU25 – average are 11.7, 13.9, and 37.9.

E – business. % of Bulgarian enterprises with integrated business processes is 37.3, those with integrated external business processes is 2.7. The corresponding levels for EU25 average are 37.3 and 13.5. The respective ranks of the country are 26 and 25. **Security:** % of enterprises in the country, using security services are 9.4 against 41.0 in EU25 average, which rank it on25 place. The % of enterprises in the country using digital signatures for authentication are 20.2, which is aabove EU25 average and rank Bulgaria on third place.
Employment and skills. % of employees using computers connected to the internet in Bulgaria is 14.5 against 36.1 in EU25 average, which ranks the country on 27 place.% of persons employed with ICT user skills are 11.5 against 18.5 in EU25 average, which ranks the country on 26 place. The country is better performed in % of persons employed with ICT special skils – 2.9 against 3.1 in EU 25 and a rank of 13.

The recent state-of-the-art of policies and strategies for digital literacy in Bulgaria could be measured as regards uptake of ICT and specific situation concerning dugital literacy, using European Commission's website "Supporting Policy Development for e-Inclusion"[6]).



Internet usage, %
Source:*VitoshaResearch, Base 15+*
In the first half of 2006 31 % of population aged over 18 had an access to computer and over 25 % of population aged over 15 used Internet most commonly at home or at the work place

[6] **www.ipolicy.eu, http://countryprofiles.wikispaces.com/**

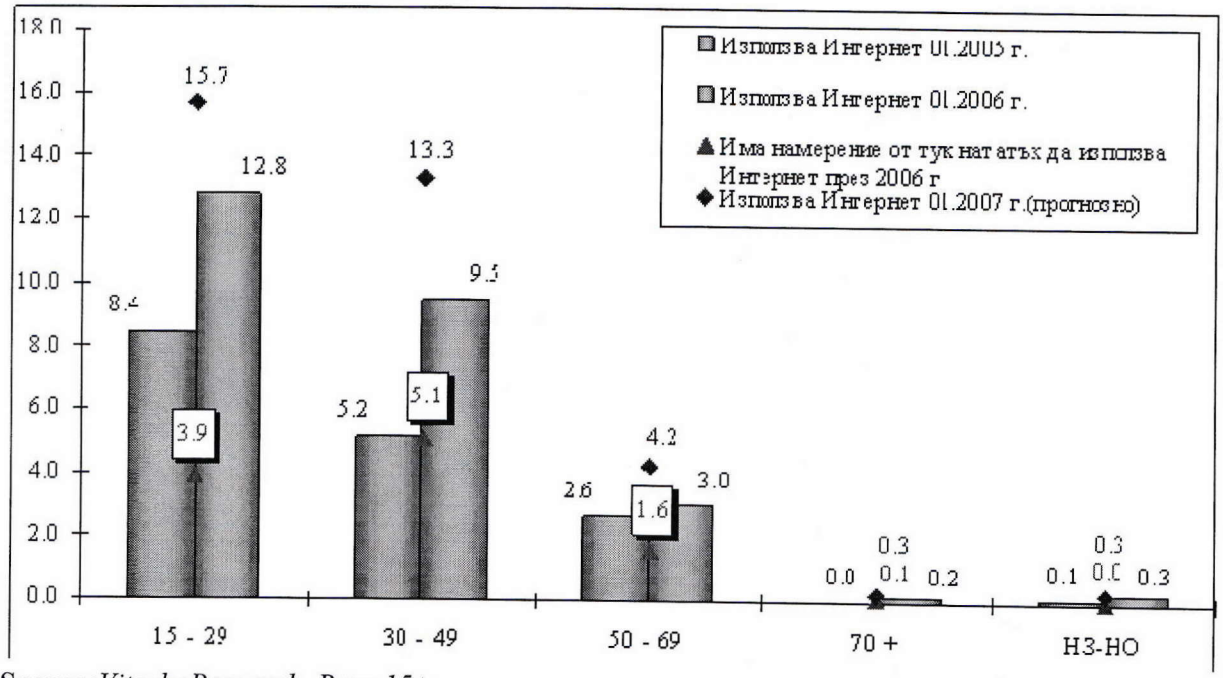
(Vitosha Research, 2006).

Type of Access to Internet, (% from Internet users)

Type	November 2004	October2005
Dial-up	2,0	1,8
Leased lines	0,3	0,6
Cable modem	4,8	4,3
Wireless	0,1	0,3
LAN	1,2	3,1
ADSL	0,3	0,5

According to data from the *Vitosha Research survey, December 2005*, the most popular Internet access is the cable one (around 4.3%), followed by the LAN access (3.1%). ADSL and wireless access is slightly above 1% of the population.

Internet usage according to the age (%)



Source:*VitoshaResearch, Base 15+*

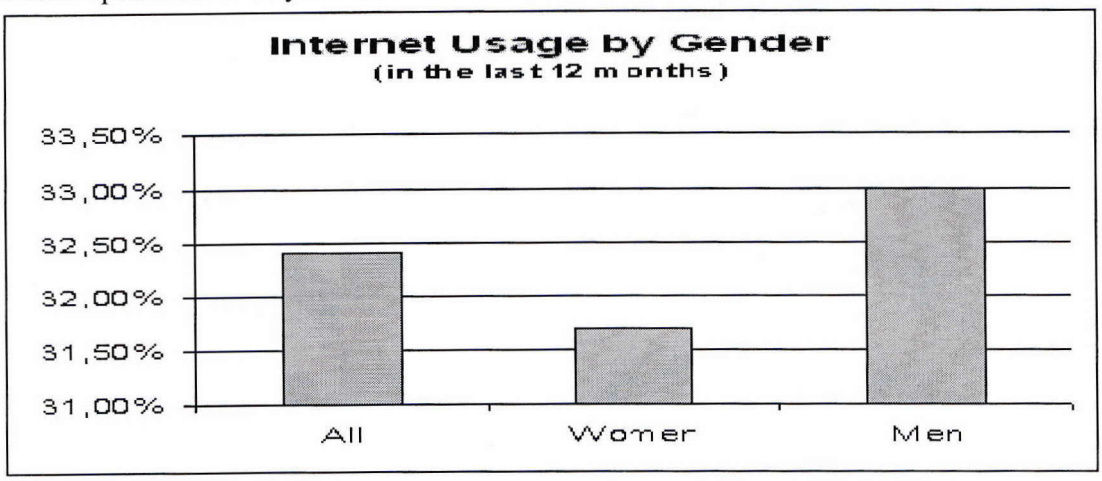
No of individuals (15-74) having ordered/bought goods and services for private use over internet in the last 3 months.

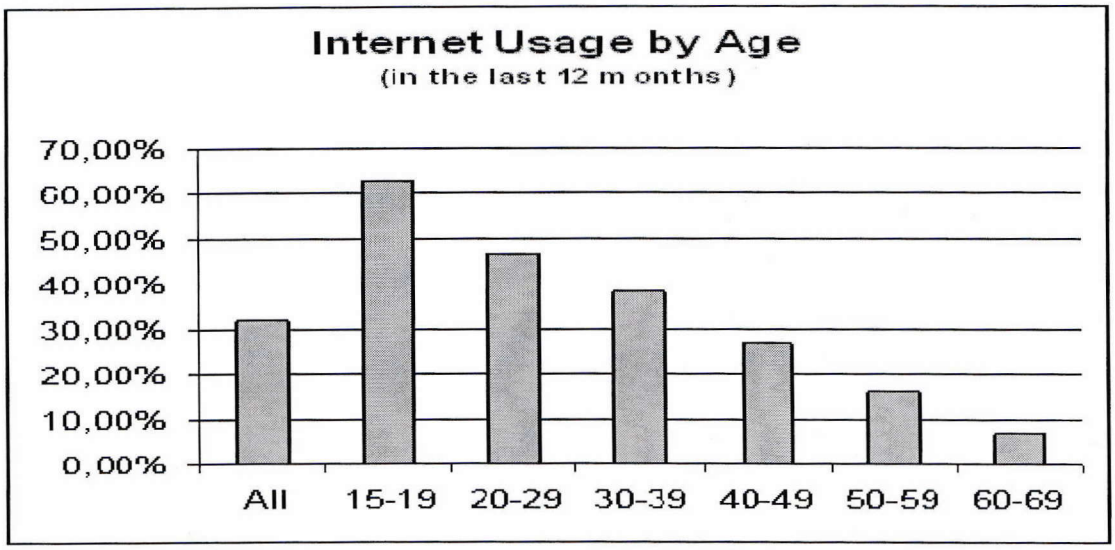
Response	(XI'2004)	(X'2005)
Yes	0,9	1,6
No	20,5	22,7
N.A.	1,4	1,7
Do not use Internet	77,2	74,0
Base	*927*	*915*

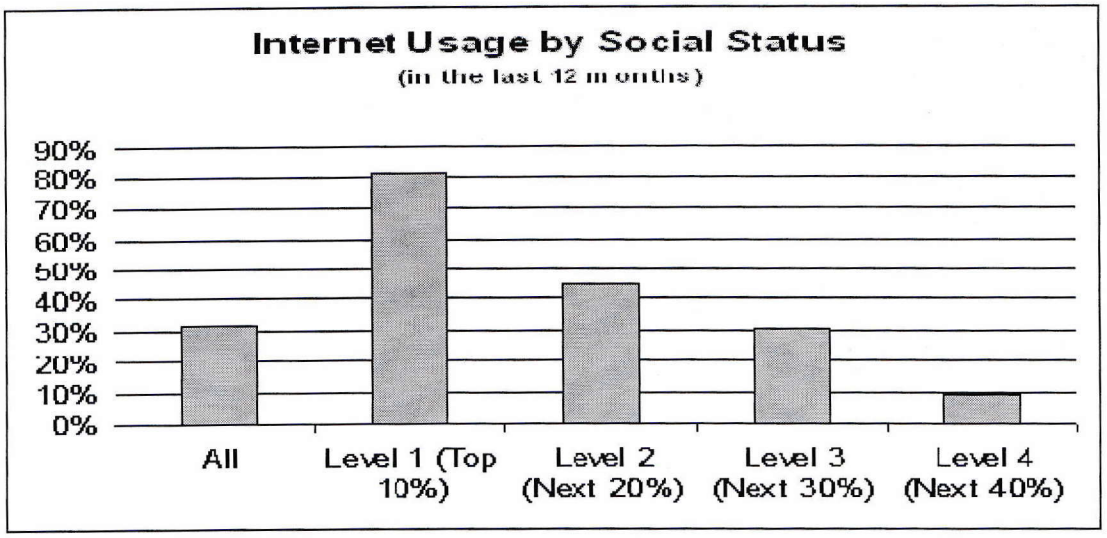
Source: *Vitosha Research*

Another view on the internet users

Urban Population 15-60 years old







Source: *Market Test, TGI Bulgaria, Autumn 2006*

2.2. Policies and strategies for digital literacy

There are many policies and strategies which concern digital literacy. E-inclusion, and e-learning for improving digital competencies take the majour place among them.

2.2.1. e-Inclusion History

Action Plan eEurope+ was the basic document which set the priorities for development of the Information society in Bulgaria. It recommends implementation of the basic directions of the Web Accessibility Initiative (WAI) of W3C Consortium (http://www.w3.org/WAI) in the public web pages. On its base the National Program for Information Society Development in Bulgaria was actualized in 2001. It includes activities for adoption of Design for all standards about accessibility of the ICT products and about improving opportunities for employment and social incorporating of the people with disabilities. It was reliable on public-private partnership and collaboration on behalf of the European standardizing organizations and European Commission. The principles of WAI have advisable character. In some countries they have been adopted as norms which guarantee the effect of their implementation. The former Ministry of Transport and Communications (MTC) together with branch associations and non-governmental organizations realized activities in Principles of accessibility popularizing and it foresaw survey in opportunities of their acceptance as norms in the national legislation.

With the financial aid of the former Agency for Development of the Communications and ICT in the structure of MTC in 2003 MTC realized two initiatives related with internet access insurance of people with disabilities. An examination and analyze of the basic requirements for creating internet access place for people with disabilities was completed with the purpose of their integration in the information society. A business plan about the necessary equipment for one universal place for access and training of different categories people with disabilities was prepared according to the available communications of the living place type. Specialized portal was created in full response to W3C access requirements, level "A" and in a great degree to level "AA" which let access of people with sight, hearing and vocal impairments to

web documents and information related mainly with their specific needs and necessities.
In occasion of European Year of People with Disabilities the Council of Ministers (CM) prepared Bulgaria for All Program. In its framework was developed Bulgarian software for synthetic speech under WINDOWS in aim of blind people. Information access for blind people was ensured throughout established Bulgarian version for reading machines, opportunity computers with Braille and synthetic speech to work in Bulgarian was ensured as well.
In the Sector Policy in communications an accent was put in the field of standard harmonization; universal service delivery field and customer interests protection.

The Regulation about Order and Conditions for insuring universal communication service, according to the Telecommunications Law, foresees insuring access to fixed telephone services for people with disabilities, like: free of charge telephone directories, including alternative telephone directories; consumer communication devices with deaf consumers' facilities; considering access to short massage service (SMS) to the emergency-call number; facilities for blind consumers; free of charge including in the service "Limitation of the outgoing calls"; telephones for public use installation accessible for customers in wheelchairs; telephones for public use installation with text link or another kind link; detailed account insuring in accessible format; account payment at home.
In Bulgaria only the satellite television is fully digitalized at present. The Sector Policy in Communications foresees full digitalization of the cable television till 2010, full covering of the country with digital land television till 2015, inculcating of the digital broadcast system DAB till 2015 and digital broadcast fewer than 30 MHz (DRM) till 2020.
In relation with Media Section of the Council of Europe activities on behalf of Bulgaria was made a proposal in the draft Recommendation about Democratic and Social Influence of the digital broadcasting to be added a text which requires the electronic program guidance (EPG) and digital decoders to be consistent with the special needs of the people with disabilities and lack of foreign language knowledge as well with the aim to be maximal accessible for all the members of the society without sense of age, language knowledge and disability.
For access of people with sight impairments to the digital television services is necessary to be established for example sound description, sound subtitles. That's way changes in the national legislations are needed and creating of European standards about format and sound description delivery as well.

2.2.2.e-Inclusion Strategy

State Agency for IT and Communications (SAITC) set the main objectives related to enhancement of knowledge based economy as well as Information Society priorities. The objectives which concern the policies on e-Inclusion includes:

- creating a better environment for use and development of Information Technologies,
- improving computer literacy,
- creating skilled workforce,
- providing equal opportunities for Bulgarian citizens for access to Information resources and services and for acquiring skills for their use,
- Creating new quality of life, based on contemporary Information Technologies.

Promoting e-Inclusion is also defined as one of the Information Society priorities in Bulgaria. Other Information Society priorities in Bulgaria defined are as follows:

- Developing the ICT infrastructure and deploying e-services.
- Encouraging public-private partnerships for investment in ICT and innovation
- Building an effective information environment and interoperability standards
- Developing Research and Innovation infrastructure
- Promoting a full range of e-services for economic and social challenges.

Measures which are laid down in relation to e-Inclusion in Bulgaria are;

- Supporting a lifelong learning initiative for increase in qualification and computer literacy,
- Increasing the number of Public Internet Access Points, mostly in libraries.
- Supporting the establishment of rich content through the introduction of new Public Private Partnership models,
- Adopting the principles of Web Accessibility Initiative as norms in the national legislation.

Important policies in place

- National Strategy about Equal Opportunities for People with Disabilities, 2003
- State Policy for Information Society Development, 2006

e-Inclusion Legal Framework

Law in practice: Telecommunications Law,Draft Law on electronic communications

-Inclusion Actors

- Ministry of Labour and Social Policy: Responsible for the social protection and support of the vulnerable groups.
- Agency for Support: Responsible for administration of the social support programs throughout its territorial brunches.
- State Agency for IT and Communications (SAITC)
    - defines the State policy for Information Society development at legislative, technological, economical and social levels and outlines the basic related activities,
    - coordinates Information Society activities,

o synchronize and actively participate in ICT development in the public sector
e-Inclusion Who is Who

- Mrs. Emilia Maslarova : The Minister of Labour and Social Policy
- Mr. Plamen Vatchkov, Chairman of State Agency for IT and Communications (SAITC)
- **e-Inclusion Sub Group contacts:**
    - Mr. Vladimir Kalchev, Ministry of Labour and Social Policy of the Republic of Bulgaria 2, Triaditza Str., BG-1051 Sofia kalchev@mlsp.government.bg
    - Mrs. Nelly Stoyanova, Director of Information Society and Information Technologies Directorate in the State Agency for IT and Communications. "Gen. Joseph Gurko" Blvd â„– 6,BG-Sofia 1000 nstoyanova@mtc.government.bg

2.2.3.Digital Literacy and Competences

Status on Digital Literacy and Competences

- Differentiation *by skills* in the new technologies and use of Internet is an issue, where education plays a major role. The Ministry of Education and Science is implementing a Strategy for Introduction of ICT in High Schools which envisages substantial investment in high-speed Internet connectivity, development of digital educational content and teacher training.
- All universities are connected to Internet and 80% of the students are on-line
- The National High-speed Research Net wor k is connected to the European Research and Educational Network (GEANT)
- The majority of the universities provide wireless Internet access to their professors and students
- All schools are computerised and above 80% of their students use Internet
- PC density in elementary and high schools will be 12 pupils per PC within the end of 2007.

Improving the employment adaptability of disadvantaged persons.

Usingthe ICT, the active labour market policy generates conditions for **improving the employment adaptability of disadvantaged persons.** The effective use of all opportunities for ICT by elaboration, implementation, monitoring and control of the programs and measures for employment and vocational training is a base for achievement of durable results.

Actions towards stimulating Digital Literacy and Competences

Main measures:

- Employ and utilize modern information and education technologies for e-Inclusion and integration of minorities, the disabled, and the elderly;
- ICT training at an earliest age;
- Raise the computer literacy of all teachers and professors;
- Raise the level of IT expertise of computer class teachers;
- Improve the quality of informatics and information technology education;
- A lifelong learning initiative for increase in qualification and computer literacy.

Improving the employment adaptability of disadvantaged persons

MLSP undertakes particular actions - for the last several years a number of operations were launched, which resulted in raising the training quality, improving the correspondence of the offered training with the real necessities of the employers, and especially an extension of the training in the IT sphere.

Bulgarian-german CENTERS FOR VOCATIONAL TRAINING (CVT)
MLSP heads 3 Bulgarian-German CVT. The center in Pazardzhik is specialized in modern technologies, business administration and foreign language training. Upon the program "CT of young men" the access of young persons to ICT is improving through gaining knowledge in these sphere. The training of unemployed youth is accomplishing upon educational program (EP), based on the contemporary achievements in the field of ICT. In 2006 a training for 1000 youths and employment for 161 persons is planned.

Raising of the vocational training (VT), human capital's development (HCD) and life long learning (LLL)
The actions for raising of the VT, HCD and the LLL are among the main priorities of the employment policy. Accordingly, measures for VT's improvement of the disadvantaged groups on the labour market are launched, particularly intended to VT of young people, computer training, entrepreneurship's training, etc. The actions for raising the knowledge of unemployed persons in the field of ICT hold a significant part in National Action Plan for Employment.

Project "training for reconcilement between work and family life of women" (project "trwflw")
In 2006 MLSP in co-operation with Bulgarian Industrial Association will realize the project "TRWFLW". According to the newest ICT achievements, a complete training for 70 women is planned.

Program "TRAINING AND EMPLOYMENT OF TEACHERS" (program "TET")
In 2006 the program "TET" is launched. The activities for training of teachers how to use ICT

in the educational process take a significant place in it. In this module of the project 150 teachers are included.

3. Assessment

Bulgaria is at relatively early stage in the development of information society and respective digital literacy. However, there are some **strengths** and signs that Bulgaria is leapfrogging outdateed technologies to catch up with its new partners in the EU[7]. This statement is supported with additional arguments by Bill Robinson, who says:

"Bulgaria has an unusually well developed educational system specialising in electronics, engineering, and compiter sciences. There are more than 47 universities in Bulgaria, located in 26 different towns. At any one time, thereare more that 5000 Bulgarian students majoring in computer science and another 5000 majoring in electrical enjineering, mathematics, physics, and biotechnology. Bulgaria's advances education is right up with the top countries in the world, ranking fifth amongst all countries in sciencees and eleventh in mathematics, according to the World bank and the Economicst. Ranking second in the world in IQ tests (MENSA International), Bulgaria also ranks second in the world SAT scores"[8].

The problem is that the developed e-skills (ICT-practicioner, ICT-user, e-business skills) do not lead to significant increasing of employability (or business opportunities) for individuals in the national economy and thus the level of inclusion is on low level. There are several reasons for this state – of – the art.

In the final years of the process of pre-accession of Bulgaria to the European Union, the conditions for involving and efficient use of e-Learning in different educational institutions were significantly improved. The **basic factors** that positively influenced the improvement of the e-education index in Bulgaria could be summarised as follows: the participation of educational and research institutions in a lot of international projects; government policy; initiatives by universities, educational and research institutions; well-qualified experts in information and communication technologies, didactics, psychology and other subject areas that, with enthusiasm, add value to the development and dissemination of e-learning content.

The **weaknesses** are lack of sufficient e-Learning content, especially in the humanity areas; insufficient preparation and readiness of university lecturers and school teachers to use e-Learning technologies; insufficient didactical readiness of teachers to use e-Learning technologies; lack of a regulatory system in schools and in some universities to stimulate school and university teachers to develop and use e-Learning content.

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[7] Commission of the European communities, i2010 – Annual Information society report 2007, COM (2007) 146 final, Brussels, 30.3. 2007, SEC (2007) 395
ec.europa.eu/**information_society**/eeurope/i2010/docs/**annual_report/2007**/comm_pdf_com_**2007_0146**_f_en_acte.pdf

[8] Value Scope Bulgaria: country positioning in leadinf expert reports, investment rating and world media., p.31
http://investbg.government.bg/upfs/25/Bulgaria _Clipping1%20.pdf

The **challenges** are:

- Development of ICT infrastructure for wide public access to electronic services;
- Making ICT products and services more accessible and more cost-effective;
- Improving digital literacy and competences in all age groups;
- Multimedia content and tools for compulsory education and life-long learning;
- Development of public websites with various measures of disability access and foreign language translation feature;
- Increasing quality of life.

In addition, a regulatory system has to be approved to stimulate, develop and use e-Learning content at all educational levels; good practices need to be disseminated; open-source software and e-learning environments with Bulgarian language interfaces should be popularised; joint research concerning the technological and didactical issues of e-Learning have to be conducted on a larger scale; and more universities should offer Master's programmes in e-Learning education.

The catalysts for improving digital literacy could be: the participation of educational and research institutions in a number of international projects; the measures taken by the state to accelerate the process of introducing e-Learning technologies at all stages of the educational system; and the readiness, attitude and problems of teaching staff in higher and secondary education.

4. Recommendation of digital literacy initiatives for furhter analysis

The T-Centers initiative is recommended for further description and analysis. This initiative has been successful with respect to reaching out to large groups, promising variety types of digital content, and efficient in raising levels of digital literacy. The initiative contributes to the social inclusion agenda.

For Bulgaria, telecenters are considered a strategic project as they are seen as truly facilitating ICT and helping engender a positive attitude towards the benefit of information technology and its application to every-day activities, among them on-line contact with administrative authorities and on-line administrative services (e-government), distance working, information enquiries, learning, affordable communications, etc. The identification of future telecenters will follow a contest, while the range of services provided to the public during the first stage of the project will be developed by government experts, the donor community and representatives of civil society organizations.

The long-term plans and objectives of the project concern the delivery of standardized, inexpensive and reliable access to a variety of information services made available on a wide basis, Bulgarian society thus becoming part of the global trends in information technology development. The project contributes to the social inclusion, regional

development, local development, labour market development, literacy development, citizenship development objectives.

5. References

Commission of the European communities, i2010 – Annual Information society report 2007, COM (2007) 146 final, Brussels, 30.3. 2007, SEC (2007) 395 ec.europa.eu/**information_society**/eeurope/i2010/docs/**annual_report/2007**/comm_pdf_com_**2007_0146**_f_en_acte.pdf

Value Scope Bulgaria: country positioning in leadinf expert reports, investment rating and world media., p.31 http://investbg.government.bg/upfs/25/Bulgaria _Clipping1%20.pdf

European Commission's website "Supporting Policy Development for e-Inclusion" (www.ipolicy.eu)..http://countryprofiles.wikispaces.com/

Tuparova D., G.Tuparov (2007) e –learning in Bulgaria – the state of the art, vmsKL e-arning in aria - the State of the Art.

http://www.government.bg

BASSCOM (Bulgarian Association of Software Companies) www.basscom.org
BIBA (Bulgarian International Business Association) www.biba.bg
BBKEPI (Bulgarian Branch Chamber for electronic industry and Informatics)
BWA (Bulgarian Web Association) www.bwa.bg/en
CLICT (Center for ICT Law) www.clict.net
Club for Innovative Scenarios
E-Health Bulgaria Foundation www.ehealth-bg.org
Internet Society Bulgaria www.isoc.bg
Interspace Association www.i-space.org
NBDN (National Business Development Network) www.nbdn-bg.org
National Research Network Association www.nrn.bg
High-Technology Business Incubator-Gabrovo www.hitech-incubator.com
High-Technology Business Incubator-Varna www.htbi-varna.org

ASTEL (Association for Telecommunications) www.astel-bg.com
Association iCenters www.icentres.net
SEC (Society for Electronic Communications) www.bgsec.org

http://www.elearningpapers.eu/index.php?page=doc&doc_id=9584&doclng=6
http://www.elearningeuropa.info
http://www.digeulit.ec
http://www.e-migra.org
http://www.bfi-stmk.at/home/angebot/projekte/dicomp-Snet.php
www.ipolicy.eu
http://www.w3.org/WAI)

Annex A1:

Digital literacy initiatives in Bulgaria

1. Title of the initative: T-center
2. Contact details including weblinks: http://www.icentres.net/index.php?id=201
3. Start- and end-date:

4. Motivation for the initiative:

T-Centers Project is a joint project between the Government of Bulgaria and UNDP, which aims to establish a broad-base network of public telecenters providing services to the widest possible range of users in small or economically underdeveloped communities. For Bulgaria, telecenters are considered a strategic project as they are seen as truly facilitating ICT and helping engender a positive attitude towards the benefit of information technology and its application to every-day activities, among them on-line contact with administrative authorities and on-line administrative services (e-government), distance working, information enquiries, learning, affordable communications, etc. The identification of future telecenters will follow a contest, while the range of services provided to the public during the first stage of the project will be developed by government experts, the donor community and representatives of civil society organizations.

5. Objectives of the initiative (social inclusion, regional development, local development, labour market development or enhancements, literacy development or enhancement, citizenship development objectives, other objectives):

The long-term plans and objectives of the project concern the delivery of standardized, inexpensive and reliable access to a variety of information services made available on a wide basis, Bulgarian society thus becoming part of the global trends in information technology development. The project contributes to the social inclusion, regional development, local development, labour market development, literacy development, citizenship development objectives.

6. Level of implementation (local, regional, national, international, sector oriented).

Currently iCentres has 81 locations that are expected to grow to over 130 by the end of the year.

The initiative contributes to the local development in the following towns:

Locations

.: Avren	.: Letnitza
.: Aidemir	.: Lom
.: Aksakovo	.: Lukovit
.: Alfatar	.: Lyaskovetz
.: Ardino	.: Mesta
.: Balchik	.: Mezdra

.: Bansko
.: Batak
.: Beli Iskar
.: Belogradchik
.: Berkovica
.: Boboshevo
.: Botevgrad
.: Brezovo
.: Brusartzi
.: Bulgaria-Korea Internet Plaza
.: Byala
.: Vaksevo
.: Varbitza
.: Varna
.: Veliko Tarnovo
.: Vetren
.: Voinika
.: Vratza
.: Gabrovo
.: Glavinica
.: Gorna Malina
.: Gorno Sahrane
.: Gotze Delchev
.: Debelec
.: Dzhebel
.: Dimitrovgrad
.: Dobrich
.: Dolna Studena
.: Dospat
.: Dryanovo
.: Dulovo
.: Dupnitza
.: Elena
.: Elin Pelin
.: Elhovo
.: Zhelio Voivoda
.: Zlataritza
.: Isperih
.: Karlovo
.: Montana
.: Nevestino
.: Nedelino
.: Nikolaevo
.: Omurtag
.: Opaka
.: Oryahovo
.: Pavlikeni
.: Pazardzhik
.: Petrich
.: Plachkovtzi
.: Plovdiv
.: Polski Trambesh
.: Popina
.: Popovo
.: Provadiya
.: Radomir
.: Razgrad
.: Razlog
.: Ruse
.: Sapareva Banya
.: Sevlievo
.: Septemvri
.: Simeonovgrad
.: Simitli
.: Smolyan
.: Smyadovo
.: Stara Zagora
.: Strazhitza
.: Straldzha
.: Strumyani
.: Suhindol
.: Ugarchin
.: Hadzhidimovo
.: Haskovo
.: Hisarq
.: Tzarevo
.: Cherven Bryag
.: Chernomoretz

.: Kermen
.: Knezha
.: Kotel
.: Kresna
.: Krushari
.: Kubrat
.: Kula
.: Kiustendil
.: Shipka
.: Shiroka Lyka
.: Shumen
.: Yakimovo

In parallel to the establishment of tele-centers, more powerful centers with state-of-the-art technology will be established at strategic locations in some of the large cities - airports, conference centers, and others. These will be set up in partnership with businesses to showcase the latest breakthroughs in communication and computer services.

Target groups/ beneficiaries of the initiative:

The beneficiaries are the overall population of the towns, more concretely - businessmen and citizens that demand more advanced information services, such as access to virtual private networks, broadband communications, video conferencing, access to specialist internet resources, internet banking, etc.

7. Types of methods applied to achieve objectives, in particular whether specific digital content is a part of the methods employed and whether this content has been particularly adapted to the needs and situation of the target groups or beneficiaries. Possible types of methods: Development of new methods, including development of specifically adapted digital content; infrastructure development; digital literacy competence development measures; motivation strengthening and/or awareness raising; other methods.

Basic Office Services

- The list of basic services includes printing, fax, scanning, Xerox, web development, consultancy services etc.

Infrastructure and Internet Connectivity

- Currently iCentres has 81 locations that are expected to grow to over 130 by the end of the year. At each location they supply Broadband Internet Access, Internet Solutions and Virtual Private Networks (VPN)

Education, Training and Certification

- One of the main activities offered at iCentre locations around the country is educational courses and skills trainings. They are able to offer leading programs that focus on all levels of computer skills. In many initiatives, the iCentre partner with leading organizations specializing in the field of education and skills training, IT courses, language learning and business training courses. Government training is also under way in most municipalities, teaching 10 000 state administrators basic computer skills. These organizations include Microsoft Unlimited Potential (MSUP), Cisco Network Academy Program (CNAP) etc.

- iCentres are able to issue ECDL (European Computer Driving License), as well as IT Card (Good User Certificate) certifications for computer literacy.

Customized content

- iCentres is focusing on promote local values, aggregating community-based local content and distributing information. This includes the encouragement and organization of social gatherings, events and other forms of community participation and capacity building.

e-Government Value Added Services

- E-Government services offered at iCentres include general Information, submitting application forms, identity confirmation, receipt of payments etc.

Internet Value Added Services

- The services that the iCentres network will be focusing on in the future will be on-line and off-line business services. The service categories included under this heading are identity confirmation, e-payments, Micro-banking / Micro-payments, E-Business network, building e-commerce infrastructure, Voice and video over IP (VoIP), e-Health, e-Insurance. In order to provide these services, the broadest possible range of technologies will be used: phone lines, wireless connections, satellite connectivity, cable modems or ISDN.

8. Magnitude of the initiative in terms of funding, participants and/or outputs .

Magnitude of the initiative in terms of contributors and end users is great.

9. Participants Involved stakeholders or contributors (public sector institutions; education and training institutions; private sector enterprises such as ICT industry, SMEs, large companies; social partners; and/or civil organisations including community groups, NGOs, or user groups such as for the elderly, the disabled, immigrants etc.)

Please describe the stakeholders which are involved in the initiative, using the above categories and supplement where required.

Contributors to the initiative are:

.: UNDP
.: State Agency for Information Technology and Communications
.: ICT Development Agency - executive institution
.: Bulgarian Posts
.: Sofia University
.: BAS, IIT, Lab for viruses
.: Bulgarian Hotel and Tourist Association
.: LINUX society - Open Source
.: BAIT
.: Bulgarian Union of Automatics and Informatics - ECDL
.: NAVET - License of an educational center
.: BANKSERVICE - micro payments, digital certificates, e-signature
.: EDIMIT - language education
.: PONS - language education
.: Embassy of the Korean Republic
.: Junior Achievement Bulgaria
.: International Business School
.: Project "Chitalishta"
.: Project "JOBS"

10. Types of ICT involved in the initiative (hardware such as PCs, PDAs, mobile phones, multifunctional devices; the ICT technologies and contents of which the initiative is to lead to mastery).

Currently iCentres has 81 locations that are expected to grow to over 130 by the end of the year. At each location they supply Broadband Internet Access, Internet Solutions and Virtual Private Networks (VPN)

The services that the iCentres network will be focusing on in the future will be on-line and off-line business services. The service categories included under this heading are identity confirmation, e-payments, Micro-banking / Micro-payments, E-Business network, building e-commerce infrastructure, Voice and video over IP (VoIP), e-Health, e-Insurance. In order to provide these services, the broadest possible range of technologies will be used: phone lines, wireless connections, satellite connectivity, cable modems or ISDN.

11. Payment for participation

There is no information whether beneficiaries/target groups must pay for participating in the initiative, and if yes how much.

12. Measures applied for motivating the target groups for participation (possible types of measures: information on concrete benefits from participating; remuneration; award of diplomas or certificates; services or advice as reward; integration with workplace practices; other types of motivating measures).

There is no information if specific measures have been applied to motivate the target groups for participating and if yes which, using the above categories. It is needed to survey the specific target group behaviour in different groups of towns in order to provide reliable answer to this question.

13. Approaches to document the results of the initiative, including whether the initiative involves formal assessments of the participants' achievements. Does the initiative assess the results of activities at the level of individuals? If yes, does this assessment lead to formal certification? Does the initiative document the results of activities in other ways, for instance in the form of evaluations or follow-up inquiries into the wider effects of the initiative?

There is no information how results of the initiative are documented, using the categories above.

14. Assessment of the potentials of the initiative for informing future policy making: Is the initiative likely to represent experiences or good practices which it would be beneficial to describe and assess in more detail?

There is no information how the initiative is likely to potentially inform future policy making or represent good practices which should be examined in greater detail.

Annex A2:

Digital literacy initiatives in Bulgaria

15. Title of the initiative: the Bulgarian ICT cluster
16. Contact details including weblinks: http://www.ictalent.org/
17. Start- and end-date: December, 2004

18. Motivation for the initiative:
The Cluster is organisation of the Bulgarian ICT business, a policy maker and a know-how transfer centre. Following 3-year collaborative process on the National ICT Strategy formation, the ICT cluster was formally established in December 2004 as a platform for open exchange of information and ideas equally accessible to both small and big companies, and young and experienced professionals. The unifying principle is to utilize information and communication technologies as a vehicle to enable economic growth and social well-being.

19. Objectives of the initiative:
The Bulgarian ICT cluster works in 4 strategic directions: to promote knowledge, best practices and trends for and through the development of information technologies and to encourage the efforts of all stakeholders and organisations in developing a knowledge society and to ensure access to information about ongoing initiatives to all actors in the ICT community. Thus the initiative is aimed to regional and local development.

20. Level of implementation (local, regional, national, international, sector oriented).
The dynamics of the sector have begat a number of business associations of ICT sub sectors and ICT NGOs in Bulgaria, 15 of which have united in an open business form called the ICT Cluster Society. The ICT Cluster Society meets regularly to comment on and elaborate existing and new policies important for the information and communication technologies in Bulgaria.

21. Target groups/ beneficiares of the initiative: (The overall adult population; senior citizens (age 65+); Low-education, low-skilled; Immigrants, 2nd generation immigrants or refugees; groups with specific disabilities; economically inactive (outside the labour force); other groups.

Target groups are organised in a ICT cluster society.

The ICT Cluster Society is a forum for constructive dialogue and cooperation between the ICT-related NGOs in Bulgaria and for sharing information about ongoing initiatives and opportunities for collaboration on common projects. The ICT Cluster Society is the main body determining the vision and the strategic development of the organization.

22. Types of methods applied to achieve objectives, in particular whether specific digital content is a part of the methods employed and whether this content has been particularly adapted to the needs and situation of the target groups or beneficiaries. Possible types of methods: Development of new methods, including development of specifically adapted digital content; infrastructure development; digital literacy competence development measures; motivation strengthening and/or awareness raising; other methods.

The fundamental mechanism for policy creation is the working groups of the Bulgarian ICT cluster. They are flexible organisms that form at ICT Cluster Society decisions and address a topic /theme of current importance, usually in the realm of the four main strategic directions pursuant to the National ICT strategy. As of September 2006 the active working groups are in the following areas: e-government, e-education, e-justice and legal framework, e-health, telecommunications and liberalisation of market, investment and strategic development, public-private partnership, incubators and venture capital.

23. Magnitude of the initiative in terms of funding, participants and/or outputs (total budget, the number of end users or end beneficiares; quantity of outputs (courses, pieces of hardware or other forms of outputs).

The magnitude of the initiative in terms of output is creation of new knowledge, best practices and trends for and through the development of information technologies.

24. Involved stakeholders or contributors (public sector institutions; education and training institutions; private sector enterprises such as ICT industry, SMEs, large companies; social partners; and/or civil organisations including community groups, NGOs, or user groups such as for the elderly, the disabled, immigrants etc.)

The stakeholders which are involved in the initiative, are the organizations in the ICT Cluster Society:

BASSCOM (Bulgarian Association of Software Companies) www.basscom.org
BIBA (Bulgarian International Business Association) www.biba.bg
BBKEPI (Bulgarian Branch Chamber for electronic industry and Informatics)
BWA (Bulgarian Web Association) www.bwa.bg/en
CLICT (Center for ICT Law) www.clict.net
Club for Innovative Scenarios
E-Health Bulgaria Foundation www.ehealth-bg.org
Internet Society Bulgaria www.isoc.bg
Interspace Association www.i-space.org
NBDN (National Business Development Network) www.nbdn-bg.org
National Research Network Association www.nrn.bg
High-Technology Business Incubator-Gabrovo www.hitech-incubator.com
High-Technology Business Incubator-Varna www.htbi-varna.org

Organizations supporting the formation:

ASTEL (Association for Telecommunications) www.astel-bg.com
Association iCenters www.icentres.net
SEC (Society for Electronic Communications) www.bgsec.org

25. Types of ICT involved in the initiative

Among the types of ICT involved in the initiative are: hardware such as PCs, PDAs, mobile phones, multifunctional devices; the ICT technologies and contents of which the initiative is to lead to mastery, etc.

26. Payment for participation

There is no information available whether beneficiares/target groups must pay for participating in the initiative.

27. Measures applied for motivating the target groups for participation
There is no information available whether or not specific measures have been applied to motivate the target groups for participating.

28. Approaches to document the results of the initiative, including whether the initiative involves formal assessments of the participants' achievements.
There is no information available whether and how results of the initiative are documented.

29. Assessment of the potentials of the initiative for informing future policy making.
There is no information available whether and how the initiative is likely to potentially inform future policy making or represent good practices which should be examined in greater detail.

Annex A3:

Digital literacy initiatives in Bulgaria

30. Title of the initative: the Sofia University Center for information society cluster (SU-CIST)
31. Contact details including weblinks: http:www-it.fmi.uni-sofia.bg/cist/
32. Start- and end-date: 1999

33. Motivation for the initiative:

The initiative is to cover the gap in cooperation between the university and academic community, industry – SMEs, NGOs, banking and financial institutions and local community through coordinating the efforts in spreading the information technologies wide implementation and use in the knowledge – based society.

34. Objectives of the initiative (social inclusion, regional development, local development, labour market development or enhancements, literacy development or enhancement, citizenship development objectives, other objectives):

The objective of SU-ICT is to create and establish fruitful cooperation between the university and academic community, industry – SMEs, NGOs, banking and financial institutions and local community for coordinating the efforts in spreading the information technologies wide implementation and use in the knowledge – based society. The **main aim** of CIST is to become a national and regional Centre of Excellence in Information Society Technologies (IST) for South-East Europe. The Center devotes its capacity to strengthen the process of IST implementation and to shorten the process of scientific research development and industry applications.

35. Level of implementation (local, regional, national, international, sector oriented).
Please describe the level of implementation, using the relevant of the above categories and supplement where required.

As of September 2006 the active working groups are in the following areas: e-government, e-education, e-justice and legal framework, e-health, telecommunications and liberalisation of market, investment and strategic development, public-private partnership, incubators and venture capital.

36. Target groups/ beneficiares of the initiative: (The overall adult population; senior citizens (age 65+); Low-education, low-skilled; Immigrants, 2nd generation immigrants or refugees; groups with specific disabilities; economically inactive (outside the labour force); other groups.
Please describe the target groups / beneficiares, using the relevant of the above categories and supplement where required.

The fundamental mechanism for policy creation are the working groups of the Bulgarian ICT cluster. They are flexible organisms, that form at ICT Cluster Society decisions and address a topic /theme of current importance, usually in the realm of the four main strategic directions pursuant to the National ICT strategy.

37. Types of methods applied to achieve objectives, in particular whether specific digital content is a part of the methods employed and whether this content has been particularly adapted to the needs and situation of the target groups or beneficiaries. Possible types of methods: Development of new methods, including development of specifically adapted digital content; infrastructure development; digital literacy competence development measures; motivation strengthening and/or awareness raising; other methods.

A vast variety of types of methods has been applied to achieve objectives. The specific digital content is a part of the methods employed and this content has been particularly adapted to the needs and situation of the target groups. Among the types of methods are: Development of new methods, including development of specifically adapted digital content; infrastructure development; digital literacy competence development measures; motivation strengthening and/or awareness raising; other methods.

38. Magnitude of the initiative in terms of funding, participants and/or outputs (total budget, the number of end users or end beneficiares; quantity of outputs (courses, pieces of hardware or other forms of outputs).

The magnitude of the initiative in terms of output is seen from its aim - to become a national and regional Centre of Excellence in Information Society Technologies (IST) for South-East Europe. The Center devotes its capacity to strengthen the process of IST implementation and to shorten the process of scientific research development and industry applications.

39. Involved stakeholders or contributors

The contributors of the initiative are education and reseach institutions (university and academic community), private sector enterprises such as ICT industry – SMEs, NGOs, banking and financial institutions and local community.

40. Types of ICT involved in the initiative (hardware such as PCs, PDAs, mobile phones, multifunctional devices; the ICT technologies and contents of which the initiative is to lead to mastery).

Please describe the types of ICT involved in the initiative, using the above categories and supplement where required.

The ambition **main aim** of CIST - to become a national and regional Centre of Excellence in Information Society Technologies (IST) for South-East Europe, suggests implementation of many types of ICT, which are devoted to strengthen the process of IST implementation and to shorten the process of scientific research development and industry applications.

41. Payment for participation

There is no information available whether beneficiares/target groups must pay for participating in the initiative, and if yes how much.

42. Measures applied for motivating the target groups for participation.

There is no information available whether or not specific measures have been applied to motivate the target groups for participating and if yes which

43. Approaches to document the results of the initiative, including whether the initiative involves formal assessments of the participants' achievements.

There is no information available whether and how results of the initiative are documented.

44. Assessment of the potentials of the initiative for informing future policy making: Is the initiative likely to represent experiences or good practices which it would be beneficial to describe and assess in more detail?

There is no information available whether and how the initiative is likely to potentially inform future policy making or represent good practices which should be examined in greater detail.

Annex B:

Description of monitoring / measuring initiatives in Bulgaria

1. Title: Statistical indicators for benchmarking Information society development in Bulgaria

2. Contact details, including web links of the project or the implementing agency:
Project: http://www.sibis-eu.org
Implementing agencies:
Institute of economics, Bulgarian academy of sciences – www.iki.bas.bg
Union of scientists in Bulgaria – www.usb-bg.org

3. The time-frame or regularity of the monitoring initiative 2003-2004

4. The groups targeted by the measurement or monitoring initiative

The group targeted by the measurement initiative is consisted by the adult population - all persons aged 15 and over, living in private households.

5. The geographical or functional level at which the initiative is implemented.

International initiative further developed in Bulgaria through publication of a book:
Chobanova, R. INFORMATION SOCIETY DEVELOPMENT IN BULGARIA, USB, 2003, 267p.

6. The number of persons included in the measurement or monitoring initiative
The number of persons or respondents surveyed by the monitoring in Bulgaria was 1000.

7. The purpose of monitoring / measurement / assessment (formative or summative)?
The purpose *was summative assessment* of the level of digital literacy in the country, comparatively to the EU average, and selected countries, also for policy making purposes.

8. The methods applied for assessment, monitoring or measurement.
This project included a number of population surveys and resulted in 9 different statistical indicators for digital literacy, all of them based on respondents' self-reported use of digital tools or confidence in making use of different digital tools.

9. Summary of key findings. What where the key results of the monitoring or measurement initiative? Which strengths and weaknesses in terms of digital literacy do the results suggest for the groups targeted by the measurement or monitoring initiative?

The key results are summarised in a table: The SWOT of Information society performance in Bulgaria, in: Chobanova, R. INFORMATION SOCIETY DEVELOPMENT IN BULGARIA, USB, 2003, p.101.
All of them reflect digital literacy.

The SWOT of Information society performance in Bulgaria
The country strengths for information society development are:

- Traditionally high interest for ICT services and developments
- Level of supply of educated and skilled personnel
- Developed competencies of small and medium sized IT companies covering almost the whole spectrum of software applications from Enterprise resource Planning to CAD/CAM/CAE

The country weaknesses for information society development:

- The low level of PC penetrations
- Low level of on-line preference of interacting with government services
- Low level of e-learning
- Low level of searching of health-related information online
- Disintegrated government web presence
- Limited offer of G2C services
- Low level of mobile phone penetration

The opportunities for information society development:

- Integration into EU structures
- National strategy for IS development
- Institutional and human potential
- 35% yearly growth of IT sector in the country
- pace of the ICT penetration, and more specifically – Internet one, among young people
- ability of the business sector to develop not only design work, but also maintenance and testing fully integrated systems and solutions

The threats for information society development are:

- insufficient demand for ICT sector products and services (in comparison with their supply).

10. Assessment of the potentials of the monitoring initiative for informing future policy making

The initiative represents good practices in terms of methods or approaches which should be examined in greater detail for informing future policy making.